



OR 99 JUNCTION CITY REFINEMENT PLAN

ADOPTED _____, 2008



PREPARED FOR THE CITY OF JUNCTION CITY BY



DKS Associates
TRANSPORTATION SOLUTIONS

EXECUTIVE SUMMARY

Due to the growth in Junction City (City), recent changes in land uses, and a 3.22% average annual increase in travel every year since 1996, the OR 99 Refinement Plan (Refinement Plan), which includes an access management plan, is necessary to complete the City's Transportation System Plan (TSP). The purpose of this Plan is to determine how best to preserve the function of OR 99 through the City. This includes improvements to the surrounding local transportation system that combines the vision of the City's Downtown Plan with State, County and local transportation and land use planning efforts. The Plan aims to enhance the quality of life in Junction City by providing a project recommendation for improvements to OR 99 that meet the travel needs of the community.

With funding from the State's Transportation Growth Management (TGM) Program, the Plan was developed between July 2006 and January 2008. The scope of the project included several steps. First, extensive data collection, transportation computer modeling and mapping were developed into an existing conditions analysis. Second, a range of facility improvement alternatives were identified, then screened for feasibility and evaluated for operational performance that would lead to a long-term solution. The alternatives were then further analyzed and reduced to three. After significant input from several stakeholders, a preferred alternative was identified.

A project management team, technical advisory committee (TAC) and citizen advisory committee (CAC), and thoughtful participation from the public via open houses, written and emailed comments and countless conversations, generated diverse dialog which shaped this project's development at all levels.

The Refinement Plan contains several useful tools. First, a project – the preferred alternative – is recommended. Strong consensus indicated that the preferred design alternative for OR 99 is a couplet between OR 99 or Ivy Street (southbound) and Holly Street (northbound). In addition, an implementation phasing plan, an access management plan, and a funding analysis were developed for the preferred alternative. These tools provide the City with a framework for moving toward a design solution for OR 99 through Junction City that meets the needs of the State facility and the community.

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ACKNOWLEDGEMENTS

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FUNDING

This project was funded by the Transportation and Growth Management (TGM) Program, a joint program of the Oregon Department of Transportation (ODOT) and the Department of Land Conservation and Development (DLCD). The TGM Program relies on funding from the federal Safe, Accountable, Flexible, Efficient, Transportation Enhancement Act – Legacy for Users (SAFETEA-LU) funding and the Oregon Lottery. The Refinement Plan scope was structured around State land use and transportation policies. While it is consistent with these policies, this Refinement Plan does not necessarily reflect all of the views and policies of the State of Oregon.

The identified preferred alternative in this Refinement Plan contains a project recommendation and future improvements to OR 99 within Junction City and a discussion of possible means of funding these improvements. The Refinement Plan does not, however, obligate or imply obligations of funds by any jurisdiction for project level planning or construction. The preferred alternative project is eligible for inclusion in State, County, and local documents such as the State Transportation Improvement Program (STIP) and the Lane County Capital Improvements Program (CIP). Further, if Junction City is incorporated into a Metropolitan Planning Organization (MPO) in the future, the proposed project would be eligible for inclusion into regional planning documents. Inclusion into such documents is contingent upon State, County, and local efforts to prioritize, champion, identify and secure funding.

It is also important to note that the recommended projects on the State of Oregon transportation system cannot be considered to be reasonably likely to be constructed during the identified planning horizon as defined by Oregon Administrative Rule 660-0012-0060. Consequently, these projects cannot be relied upon to support plan amendments or zone changes and achieve compliance with Oregon Administrative Rule 660-0012-0060 unless or until they are included in an adopted State Transportation Improvement Program or a specific funding source is identified and supported by ODOT in writing or a specific funding plan that is supported by ODOT in writing is developed. The projects on the State of Oregon transportation system recommended in this document simply represent state and local agreement about State transportation system needs in Junction City that have been identified through this planning process. The process of funding the recommended projects on the State of Oregon transportation system through the STIP is discussed in greater detail in the Funding section of this Plan.

Chapter 1

Background, Policy, and Study Review

Introduction

Project Description

Due to growth in Junction City, Oregon, recent changes in land uses, and a 3.22% increase in travel per year on OR 99 since 1996; OR 99 through Junction City needs to be improved. State and local officials have developed a common understanding that an OR 99 refinement plan and access management plan are necessary to complete the City's Transportation System Plan (TSP) and protect long term functionality of this vital transportation corridor.

The purpose of this OR 99 Refinement Plan (Refinement Plan) is to determine how best to preserve the function of OR 99, including improvements to the surrounding local system that will reduce pressure on the state facility. Further, it is acknowledged that existing access spacing is less than current standards. Spacing deviations are examined to minimize impacts to property while improving long term safety and operations and an access management plan is incorporated into this document to address access issues. Overall project recommendations encompass a combination of measures aimed at improving efficiency, including access management policies, actions, and treatments, intersection improvements, and local street connections.

Project Objectives

The Refinement Plan accomplished the following objectives:

- Identify roadway facility needs, both on the highway and on the surrounding local system
- Solve short and long term problems associated with the safe operation of the highway through the city, including access management and pedestrian and bicycle crossing issues
- Identify decision thresholds for implementing the plan
- Adopt the Refinement Plan through a public process as an amendment to the Junction City TSP

Planning Process

The overall work approach for this analysis included several steps and numerous participants. First, the project management team developed a participation structure, defined the project decision making process, and developed a schedule. The Refinement Plan preferred alternative relied heavily on the participation of several bodies.

Project Management Team (PMT)

The PMT was comprised of representatives from Junction City, ODOT, the consultant – DKS Associates, Lane Council of Governments, and later, Lane County. This team met monthly between June 2006 and January 2008 to fulfill the contracted requirements of the project, provide peer feedback, and participate in the technical and public outreach efforts.

Technical Advisory Committee (TAC)

The TAC provided technical guidance for the Refinement Plan. TAC membership included the PMT, Federal Highway Administration, Transportation Planning Analysis Unit (TPAU), ODOT Access Management, Department of Land Conservation and Development (DLCD), Lane County (County), Lane Transit District, Junction City School District, railroad operators, and additional Junction City Staff. Four formal meetings were held to review project deliverables by the TAC prior to taking them to the Citizen Advisory Committee for feedback. Consensus was found in choosing both the broader design alternatives and, ultimately, the preferred alternative.

Citizen Advisory Committee (CAC)

A 20-person Citizen Advisory Committee (CAC) was formed to provide input on project process. The membership consisted of several diverse stakeholders including, but not limited to the Lane County Roads Advisory Committee (RAC), a “through user”, adjacent property owners, bike and pedestrian users, and business owners. Four formal meetings were attended by this committee. The CAC provided important feedback throughout the development of the Refinement Plan. Consensus within the CAC was found in choosing both the broader design alternatives and, ultimately, the preferred alternative. These decisions also reflected, in large part, the TAC decisions.

Extended Public Outreach

The PMT also developed a public involvement program to solicit participation in transportation planning in Junction City. Draft documents were available at Junction City Hall; notices to public open houses were printed in the regional newspaper and distributed throughout the community with flyers. The City website reflected project progress, and City staff and project managers were accessible by email, phone, and written correspondence throughout the project. Significant one-on-one dialog between project managers and citizens catalyzed the relatively high public participation at open houses as well as minimal negative feedback about the chosen design alternatives and the preferred alternative. A qualitative assessment of written and verbal feedback throughout the project characterized the public outreach efforts as inclusive and fair. In particular, the one-on-one effort that DKS invested into discussions with property owners about access management issues was beneficial to the project’s success.

Adoption Process

Within the scope of the TGM program, two open houses focused on the community at large. Both events attracted several people, with diverse backgrounds and opinions. The second open house, which concentrated on a final access management plan and the selection of a preferred alternative, drew over 90 participants (including staff).

The adoption of the Refinement Plan took several steps and provided several additional opportunities for public input. Many decision-making bodies reviewed the Refinement Plan prior to adoption. Public hearings, work sessions and meetings included:

- Joint Session between the Junction City Planning Commission and City Council
- Recommendation by Lane County Roads Advisory Committee
- Recommendation by Lane County Planning Commission
- Recommendation by Junction City Planning Commission
- Adoption by Junction City City Council
- Adoption by Lane County Board of Commissioners
- Adoption by Oregon Transportation Commission

The additional steps of the project are detailed in the Refinement Plan including:

- *Data Collection* – review of new documentation relating to OR 99 operations, traffic counts, coordinated transportation modeling conditions, and GIS mapping.
- *Existing Conditions Analysis* – analysis and validation of existing safety, operating and geometric conditions, future year traffic volumes, and future operating conditions.
- *Alternatives Identification* – identification of a range of facility management and improvement alternatives and conducted a qualitative/quantitative screening process to select the most feasible alternatives for comprehensive operational and geometric evaluation.
- *Alternatives Evaluation* – evaluating the operational performance and geometric feasibility of the selected alternative scenarios using the future traffic volumes. In addition, a threshold analyses is conducted to determine the points at which various recommended improvements will be required (in terms of both time and demand), and development of phasing concepts that could be implemented as a series of short term improvements that lead to successfully implementing the recommended long-range solution.
- *Plan & Implementation Package* – preparation of the Refinement Plan with a recommended implementation package, including a list of short- and long-range or phased improvements, complementary local system improvements and management strategies, and an analysis of financing mechanisms for projects identified in the Capital Improvement Plan.
- *TSP Amendment Adoption* – facilitation of adoption of the Refinement Plan as a component of the Junction City TSP.

Policy Review

The first step in developing the Refinement Plan is to identify and analyze updates to major long-range planning documents since the adoption of the Junction City TSP on 2000 to ensure consistency between statewide and local planning processes. Several policy refinements were been made during this period both at the State and County level. The Oregon State Transportation Planning Rule (TPR), for example, experienced an entire overhaul. Other documents, such as the Oregon Highway Plan (OHP) amended specific actions. It is both

unrealistic and unnecessary to describe the breadth of each change in this Refinement Plan. However, a substantial effort was made to highlight the amendments most relevant to the Junction City TSP Update. The remaining portion of this chapter outlines the changes to State and County planning requirements that provided guidance for the development of the Refinement Plan.

State

Oregon Transportation Plan (2006)

The Oregon Transportation Plan (OTP) is the state's long-range multimodal transportation plan for Oregon's airports, bicycle and pedestrian facilities, highways and roadways, pipelines, ports and waterway facilities, public transportation and railroads. The OTP establishes policies, strategies and initiatives for addressing the challenges and opportunities in the next 25 years and guides transportation investment decisions. An OTP update was adopted by the Oregon Transportation Commission (OTC) October 2006. Key updates/changes to the plan since 2002 that are relevant to the Junction City TSP Update include, but are not limited to, the following basic principles:

- Investments will weigh heavily on maintaining the existing transportation infrastructure and to use those facilities more efficiently.
- More language is incorporated to emphasize the importance of mode choice.
- Increased prioritization of safety issues and projects.
- Emphasis on freight mobility.
- Capacity building projects should make the following considerations:
 - Ensure that strategic investments balance maintenance and preservation needs with critical capacity enhancements and operations
 - Recognize that safety may be a strategic investment
 - Address key bottlenecks where feasible. This encompasses driver behavior and places where constricted movements are creating delay for passenger or goods movements including interchanges, tunnels, bridges, rail yards, transit malls and other hubs where existing capacity is overwhelmed by transportation movements.
 - Support investments where congestion obstructs or impedes movements on key segments of the system.
 - Balance inter-modal investment considering return on investment, all modes and advancement of modal choice.
 - Enhance inter-modal areas which foster the integration of service delivery or provide for more efficient service delivery.
 - Assist in the promotion of job development and retention in areas such as industrial/employment centers.
 - Support the optimal use of technology to resolve issues or improve the effectiveness or integration of transportation elements.
 - Make investments that further the long-term functioning of the system as a whole.
 - Promote appropriate allocation and coordination of jurisdictional responsibility.
 - Support regional and local land use plans.
- Additional work on refining criteria for strategic investments should occur in the multimodal and modal/topic plans that implement the OTP as well as during Statewide Transportation Improvement Program (STIP) development and funding allocations.

These refinements will vary by mode and change over time as the transportation system faces new issues.

Transportation Planning Rule (2007)

The Transportation Planning Rule (TPR) are the administrative rules implemented at the local level that provide agencies a process for considering short range land use actions, long range transportation plans and changes to zoning. On June 29, 2006 the Land Conservation and Development Commission (LCDC) adopted proposed amendments to the TPR. Key updates/changes to the plan include, but are not limited to, the following areas:

- A Revised the "purpose statement" to more accurately express the overall policy consistent with Goal 12.
- Update requirements for metropolitan area planning (does not directly affect the Junction City planning process).
- Revised rule provisions for "transportation project development" to clarify that decisions made in Transportation System Plans (TSPs) need not be revisited as projects undergo detailed design and approval.
- Consolidated requirements for goal exceptions for transportation projects into the TPR. (Currently exceptions must address the Exceptions Rule as well as the TPR).
- A series of minor and housekeeping amendments were also adopted.

Oregon Highway Plan (2006)

There have been many amendments to the OHP in the last four years. Several do not directly affect the Junction City project. However, there have been amendments to both policy and technical language that could affect the Junction City TSP refinement approach. The follow summarizes the relevant amendments. A full list of amendments made to the OHP since May 29, 2002 can be found in Appendix A.

Technical Corrections

These amendments changed the way that approach spacing standards are administrated in several ways.

- The amendments removed the distinction between "minor" and "major" deviations to the standards. Now there are only "deviations". Deviation review is now automatic when spacing standards can not be met. Several OR 99 access points do not meet the current spacing standards. Deviation review will be part of implementation for the Refinement Plan.
- Division 51 no longer requires that Technical Advisory Committees be convened as advisors for spacing deviation decisions.
- The "M" dimension was one of several measurements used to determine spacing for approaches for freeways with multi-lane crossroads. It is no longer considered to be a useful measurement.

Policies

OR 99 is a state freight route and, therefore, the changes to the freight policies (Policy 4A – Freight Routes) affect the Refinement Plan development.

Policy 1B

Policy 1B implements the OHP Accessibility Policy. More specifically, this policy addresses Highway Segment Designations. Several changes have been made to this policy including an emphasis on developing more compact development patterns with Special Transportation Areas (STAs), Urban Business Areas (UBAs), and Commercial Center (CC) designations. Junction City is not currently designated and is, therefore, considered a 'Non-Designated Urban Highway' (Urban Highway) area. Urban Highway areas have their own set of standards outside the aforementioned designations.

The objective of a non-designated Urban Highway segment is to efficiently move through traffic while also meeting the access needs of nearby properties. Access can be provided to and from individual properties abutting an urban segment consistent with the highway access permitting criteria set forth in OAR 734-051. Transit turnouts, sidewalks, and bicycle lanes are accommodated. OAR Chapter 734, Division 51, establishes spacing standards for Urban Highway segments consistent with the OHP objectives. Non-designated Urban Highways traverse many different types of land use areas, from urban fringe and suburban areas to developed areas and traditional downtown or central business districts. The ODOT Highway Design Manual establishes design standards for these different development patterns along Urban highways, as well as design standards for Expressways, STAs, UBAs and Commercial Centers.

Highway Segment Designations provide benefits to the community including more lenient spacing standards; allowing a lower mobility standard, and providing more opportunity for context sensitive design considerations.

Implementing a highway segment designation was considered with the operational analysis alternatives and is included in Chapter 8.

Policy 1C and 4A

In August 2005, amendments were made to Policy 1C and 4A, which addresses the State Highway Freight System. The Junction City section of OR 99 was designated a freight route; therefore the amendments have an affect on the OR 99 analysis. The changes to these policies can be summarized by the following:

- More emphasis was placed on the importance of providing efficient and reliable movement through a designated freight system.
- Freight routes will be managed according to their highway classification. The OR 99 section through Junction City is a district freight route.
- Management plans will be developed that combine local land use planning needs while recognizing the special significance of the freight route designation. Improvements associated with designated freight routes will impact highway design elements such as roadway section widths, median barriers and intersection design. Statewide Freight Routes in general have higher mobility standards than other highways of the same classification.
- Recognize National Highway System Intermodal connectors as part of the freight network in transportation planning and funding considerations. Manage state-owned Intermodal connectors according to their state highway classification as Regional or District Highways.

- Recognize that local truck routes are important linkages in the movement of freight throughout the state. ODOT will consider requests to establish local government designated truck routes that will serve to detour trucks off the state highway system. ODOT will coordinate with local jurisdictions when designating, managing and constructing a project on a local freight route.
- Develop an amendment process for the identification of additional routes or modifications to the State Highway Freight System.
- Appendix C was updated with new spacing standards.

Lane County

Transportation System Plan

Lane County Transportation System Plan (TSP) was adopted May 2004 (effective June 2004). It was a complete rewrite of the 1980 plan. The Lane County and Junction City TSPs are required by the TPR to be mutually consistent. The project list in the Lane County TSP includes projects from the Junction City July 2000 TSP, as follows:

Table 1.

Lane County Transportation System Plan 20-Year Project List								
Projects on Lane County Roads - Sorted by TSP								
Project Number	Road Name	Limits	Begin Milepost	End Milepost	Length	Source	Description	Estimated Cost
24	High Pass Road Modernization	Hwy 99 to Oaklea Drive	0.000	0.859	0.859	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #5	\$1,200,000
25	High Pass Road Modernization (Future)	Oaklea Drive to UGB	0.859	1.520	0.661	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #5	\$900,000
21	Oaklea Drive Modernization	18th Ave West to High Pass Rd	1.512	2.534	1.022	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #7	\$1,400,000
17	Pitney Lane North	UGB to High Pass Road	1.370	1.509	0.139	Junction City	Urban Standards, 2 lane with curb, gutter, sidewalks, and bike lanes., #11	\$200,000
19	Prairie Road Modernization	Highway 99 to High Pass Road	8.030	9.250	1.220	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #8	\$1,700,000
26	Prairie Road Widening (Future)	UGB to End (near Hwy 99)	7.300	8.030	0.730	Junction City	Rural Modernization. Widen shoulders. Discussion of prison siting., #9	\$1,000,000
27	River Road Modernization*	Hwy 99 to vicinity of Strome Ln	0.000	0.694	0.694	Junction City	Urban Standards, 2-3 lane with curb, gutter, sidewalks, and bike lanes. Need and location of turn lanes to be determined., #10	\$970,000
23	8th Avenue West	City Limits to Oaklea Drive	0.000	0.330	0.330	Junction City	Bike-Ped, add sidewalks, restripe to add bike lanes and possibly turn lanes at intersections., #1	\$50,000
22	10th Avenue West	Rose Street South to Oaklea Dr	0.000	0.346	0.346	Junction City	Bike-Ped, add sidewalks, restripe to add bike lanes and possibly turn lanes at intersections., #2	\$50,000
18	18th Avenue East & Deal St Modernization	Highway 99E to Dane Lane	0.000	0.509	0.509	Junction City	Urban Standards, 2 lane with curb, gutter, sidewalks, bike lanes, and possibly turn lanes at intersections., #4	\$700,000
20	18th Avenue West Modernization	Hwy 99W to Oaklea Drive	0.000	0.854	0.854	Junction City	Urban Standards, 2 lane with curb, gutter, sidewalks, bike lanes, and possibly turn lanes at intersections such as Oaklea Dr and Rose Street., #3	\$1,200,000

Source: Lane County Transportation System Plan (2004)

The above table represents the current adopted TSP, but note that Project #22, 10th Avenue West, is no longer a County road. Therefore, this project will become a Junction City project during a future Junction City TSP update.

Capital Improvement Program (CIP)

The Lane County Capital Improvement Program (CIP) is a 5-year plan for capital improvements to Lane County's transportation network. In this 5-year plan a number of modernization projects identified in previous CIP cycles had to be cut so that the 07-11 Program would be fiscally representative of current budget projections. Goal 24, Policy 24-a in the Lane County Transportation System Plan (TSP) gives priority to preservation and maintenance (Core Program) of the County road and bridge system.

In the 2008-2012 CIP, there is one County project currently identified for Junction City:

PRAIRIE ROAD

Bailey Lane to High Pass Road

Category: GENERAL CONSTRUCTION

Scope: Two Lane Urban Facility

Justification: Total construction and right of way will be funded by the City of Junction City.

The City has also committed to accepting this section of Prairie Road as a City Street. Lane County will provide design and construction services.

Programmed for FY 08/09: Cost: 1,000,000, R/W: 100,000, TOTAL: 1,000,000

Junction City

System Development Charge Update

System Development Charges (SDCs) are often a primary funding tool for transportation. February 2005 Resolution (Res. 851), brought an update to the Junction City System Development Charge (SDC) system including Article 3: Streets. The city can charge for non-assessable costs associated with collector and arterial streets. The primary component in calculating street SDCs is vehicle trip ends generated by development at full build out. The Junction City Planning Commission and City Council considered amending the SDC methodology to include state facilities to the collector and arterial street classifications as eligible projects. However, there was general consensus not to amend the methodology to include state facilities at this time. See Chapter 8 for recommendations associated with the Junction City SDCs.

Rail Lines

There have been no substantial changes to the rail companies or maintenance agreements between the City and the rail companies since 2002. At the time this Refinement Plan was adopted, Junction City and rail companies were negotiating both maintenance and franchise agreements. Currently, Burlington Northern Railroad (BN) operates and maintains, but leases to Willamette and Pacific, one track line through Junction City between W. 2nd Avenue and W. 17th. Its primary purpose continues to be for freight movement. In the past 10 years, but more intensely in 2007, there has been a dialog regarding the potential relocation of the BN line along the existing Southern Pacific in order to free the BN right-of-way for local street use. Union Pacific (UP) owns and maintains the second track with its Valley Main Line. This line continues to be the more heavily used line. The passenger train, Amtrak Coast Starlight, continues to operate from UP.

In order for the preferred alternative to move into future planning steps, the rail line on Holly Street would need to be relocated to a different corridor.

Correctional Facility

In November 2002, Kittelson and Associates, Inc. prepared the Transportation Impact Analysis (TIA) for the potential Junction City Correctional Facility (Project No. 3884.03) for the Oregon Department of Corrections (ODOC). This report was completed under the assumption that the facility was to begin construction in 2004. Site decisions have not been made. Funding for this project will not be pursued in the 2007 legislature. Therefore, the tentative planning schedule for this facility has changed from the following: fiscal years 2007-'2009 planning, 2009-2011 construction, and completion in 2012. According to ODOC officials, work completed in the TIA remains the most accurate source for predicting potential traffic impact and planned mitigation if and when the facility is built. The 2002 plan includes plans to construct 1,700-bed minimum and medium security correctional facility. The first phase of the project would construct 400 minimum security beds. The facility would be located approximately 2.5 miles south of the current Junction City city limits. Primary access to the facility is anticipated to be provided via Milliron Road, with possible secondary emergency access available via Highway 99. The findings of the operational analysis include both ODOT and Lane County intersections. Both tables, below, present 2002 traffic conditions, forecast future conditions with and without site development, and the corresponding 2002 operating standard that must be maintained at each intersection

Table 2.

**Summary of ODOT Study Intersection Operations
(Peak 15-Minute Intersection Volume-to-Capacity Ratio Operational Analysis Findings)**

Intersection	Time of Day	Year 2002 Existing Traffic V/C Ratio	Year 2005 Traffic Conditions V/C Ratio		Year 2010 Traffic Conditions V/C Ratio		ODOT Maximum V/C Standard
			Without Site	With Site	Without Site	With Site	
Meadowview Road/ Highway 99*	AM Peak	0.02	0.02	0.02	0.03	0.03	0.70
	PM Peak	0.04	0.05	0.05	0.06	0.06	0.70
Milliron Road/ Highway 99*	AM Peak	0.01	0.01	0.03	0.03	0.10	0.70
	PM Peak	0.01	0.01	0.02	0.02	0.02	0.70
Highway 36/ Highway 99	AM Peak	0.44	0.53	0.53	0.59	0.60	0.75
	PM Peak	0.63	0.67	0.67	0.70	0.70	0.75
1 st Ave/River Road/ Highway 99	AM Peak	0.61	0.60	0.60	0.65	0.67	0.80
	PM Peak	0.93	0.72	0.72	0.79	0.79	0.80
6 th Avenue/ Highway 99	AM Peak	0.47	0.53	0.54	0.59	0.61	0.80
	PM Peak	0.68	0.82	0.82	0.91	0.91	0.80
10 th Avenue/ Highway 99	AM Peak	0.46	0.54	0.54	0.60	0.61	0.80
	PM Peak	0.52	0.66	0.67	0.72	0.73	0.80
Highway 99E/ Highway 99W	AM Peak	0.34	0.41	0.41	0.45	0.45	0.80
	PM Peak	0.43	0.51	0.51	0.55	0.56	0.80

V/C = Volume-to-Capacity Ratio

ODOT= Oregon Department of Transportation

*Note: Intersection V/C ratio represents operations of the critical movement on the state highway only.

Table 3.

**Summary of Lane County Study Intersection Operations
(Peak 15-Minute Intersection Level of Service Operational Analysis Findings)**

Intersection	Time of Day	Year 2002 Existing Traffic LOS	Year 2005 Traffic Conditions LOS		Year 2010 Traffic Conditions LOS		Lane County Maximum LOS Standard
			Without Site	With Site	Without Site	With Site	
Prairie Road / Milliron Road*	AM Peak	A	B	B	B	B	D
	PM Peak	B	B	B	B	B	D
Milliron Road/ Site-Access Drwy.*	AM Peak			A	A	A	D
	PM Peak			A	A	A	D

LOS = Level of Service

*Note: Intersection LOS represents operations of critical movement only.

Two study intersections were improved to meet local operating standards, the 1st Avenue/River Road/OR 99 intersection and the 6th Avenue/OR 99 intersection. The 1st Avenue/River Road/OR 99 intersection did not meet ODOT operating standards 2002. In 2004, turn lanes were added. Further, left turn signals are a planned improvement in the STIP.

The 6th Avenue/OR 99 intersection is not forecast to meet ODOT's operating standards under forecast 2005 and 2010 traffic conditions regardless of whether or not the correctional facility is developed as planned. Accordingly, it was recommended that ODOT and Junction City monitor operations of the 6th Avenue/OR 99 intersection and provide appropriate turn lane striping improvements at such time as conditions warrant. When warranted, separate left-turn lanes could be striped on the eastbound and westbound intersection approaches to improve the intersection to an acceptable volume-to-capacity ratio. The projected traffic volumes at the 6th Avenue/OR 99 intersection assume full build-out of the Oaklea Subdivision and property. As a result, it may not be necessary to provide the left-turn striping improvements in the near-term. Based on the results of this study, the planned correctional facility can be developed while maintaining acceptable traffic operations and safety at the study intersections within the site vicinity. The following maintenance and site development improvements were pulled directly from the executive summary of the study to enhance intersection operations and safety.

In conjunction with site development, it is recommended that the following improvements be made:

- A northbound right turn lane with 100 feet of storage should be provided at the intersection of Milliron Road/Highway 99.
- If a new site-access roadway is developed via Milliron Road and the existing north-south right-of-way easement, it should be constructed such that it aligns with the access road serving the former Swanson-Superior Forest Products wood processing facility located on the north side of Milliron Road.
- Separate left- and right-turn lanes should be constructed on the northbound approach of the new site-access roadway at its intersection with Milliron Road.
- A new stop sign should be placed on the northbound approach to the Milliron Road/Site-Access Driveway intersection.

- A “DO NOT STOP ON TRACKS” (R8-8) sign should be installed on Milliron Road on the westbound approach to the BNSF railroad crossing. The westbound lane of Milliron Road should be flared between the BNSF tracks and Highway 99 to facilitate right turn movements.
- ODOC could enhance safety by coordinating with their staff and delivery providers to route large vehicles (inmate transfer buses, large panel trucks, tractor trailers, etc.) to and from the site via Prairie Road until such time that the BNSF grade crossing is improved and a traffic signal is provided on Highway 99 at Milliron Road.
- ODOC should consider working cooperatively with Blachley-Lane Electric Coop to secure permission to use the existing BLEC crossing of the BNSF Railroad as an emergency access route to the ODOC property. In the future, as properties located south of the ODOC property are redeveloped, ODOC may wish to consider opportunities to pursue a secondary access arrangement offering a connection to Meadowview Road.
- Any landscaping provided along the site frontage should be maintained to ensure adequate sight distance at the site-access driveway.
- ODOT and Junction City should monitor operations of the 6th Avenue/Highway 99 intersection and provide appropriate left-turn lane striping on the east and west approaches to the intersection at such time as conditions warrant.
- Lane County and ODOT should monitor traffic volumes at the Milliron Road/Highway 99 intersection as future development occurs in the area. As the area is brought into the City limits and traffic volumes rise to the point that signal warrants are met, a traffic signal should be installed at the intersection in conjunction with appropriate interconnect to new active grade crossing devices at the BNSF railroad crossing (refer to pages 45 and 48 of this report for further details and explanation).
- Lane County and ODOT should ensure that existing shrubbery is properly maintained along the westbound approach of Milliron Road at the Burlington Northern Santa Fe railroad grade crossing (heading toward Highway 99) to ensure the continued availability of adequate sight distance looking south.

Additional details of the study methodology, findings, and recommendations are provided within the report.

Land Needs Assessment for Comprehensive Plan Amendments

The last major Comprehensive Plan Amendment depended on a significant land needs assessment and buildable lands inventory developed in 1999 by ECONorthwest, LCOG, and Winterowd Consulting. This 1999 data will be used by staff modelers to develop the updated model for the 2007 Update. Following is a summary of this process and data that developed into the Year 2020 Land Needs Assessment. The document updated the *Junction City Comprehensive Plan*, pp. 36, 37, 40-44 and 75-107, specifically:

- The Population Growth Projections (pp. 36, 37);
- The Economic Development Element trend analysis (pp. 40-44);
- The 1982 “Junction City Buildable Lands Inventory” (pp. 75-79);

- Appendix I, which includes Appendix A “Tables” and Appendix B “Meeting Low Income and Regional Needs for Housing” (pp. 80-89);
- The “Goal 14: Urbanization, Analysis” (pp. 90-97); and
- Appendix II, which includes additional information adopted by the City in 1983, in order to comply with Statewide Planning Goals (pp. 98-107).

Population

The population projections and land needs analysis in the acknowledged Junction City Comprehensive Plan are nearly 20 years old. The revised Year 2020 population projection of 8,130 represents an average annual growth rate of 1.9%. This projection was derived from the draft *Junction City Transportation Systems Plan*, which has been coordinated with Lane County.

Buildable Lands

The updated buildable lands inventory is based on LCOG data. The land need analysis was based on 1999 socio-economic and development trends in Junction City and was modified to be consistent with the draft Junction City TSP. Following is a summary of conclusions for this analysis and amendment process.

In 1998, the Junction City UGB had a total of 2,252 dwelling units. About 57% of the 2,252 units were considered single-family. Based on recent development trends, there is need for about 1,578 new dwelling units between 1998 and 2020. Junction City has a deficit of about 135 gross acres of buildable residential land within its 1999 UGB.

In 1999, Junction City included approximately 1,738 total acres within its Urban Growth Boundary (UGB). Of those, an estimated 813 were developed and 925 were vacant. Of total vacant acres, about 198 acres were constrained by wetlands leaving a total of 727 vacant buildable acres. Of the 727 vacant buildable acres within the Junction City UGB, more than one-third (273 acres) are in the Professional/Technical designation. Another 198 acres have an Industrial designation. About 205 acres are in Residential designations, and the remaining 52 acres are in Commercial designations.

Less than one half of all land within the Junction City UGB was developed in 1999.

The distribution of buildable land by plan designation is significantly different from that of developed land, primarily because of the large inventory of buildable land designated for Professional-Technical uses. A significant portion (273 acres) of the land in Professional-Technical designation is buildable. Over 36% (about 330 acres) of the vacant land inside the UGB is in this designation; all the Professional-Technical land is outside the City Limits. About 27% of buildable land is designated Industrial, while only 21% of vacant land is designated for residential uses.

Based on historic development trends, the City has over-allocated lands in Professional-Technical and Industrial designations. These two designations make up nearly 65% of the City's vacant buildable land, but account for only 22% of developed land.

The majority of constrained land is on land designated for industrial and professional/technical use; 167 of the 198 acres of constrained land are designated for these two uses.

Land Use Actions

There have been a relatively few number of land use actions between 2002 and the present that affect the Refinement Plan transportation modeling efforts. Zone changes, annexations, vacations, and developments were incorporated into the updated Junction City model. A comprehensive list of major land use actions are listed in Appendix G. Notably, the correctional facility and state hospital has acquired 250 acres. In addition to the information included in the buildable lands inventory, there have been two additional comprehensive plan amendments to incorporate the Country Coach expansion and the Oaklea Master Plan. All of these amendments were manually allocated into the transportation model.

